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**Clinical course, associated factors and outcome of ESRD patients affected with COVID-19: a single centered study.**

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**Objectives:** In ESRD subset of patients, COVID-19 infection is associated with increased disease burden and higher mortality rates. We aimed to determine the risk factors, course of the disease and its outcome in such subset of patients.

**Methods:** We conducted a retrospective single centered cohort study in 43 ESRD patients with a diagnosis of COVID-19, aged 18 to more than 65 years of age. Association of risk factors with mortality was assessed by Chi square test and logistic regression analysis. Data was collected on a structured performa which included variables like age, gender, comorbid conditions, drug history, clinical presentation, hemodynamic status and laboratory parameters. Outcome variables were recovery and death. All the patients received standard treatment of COVID-19 according to hospital protocol along with hemodialysis and continuous renal replacement therapy (CRRT) when needed.

**Results:** Those most affected were found to be males, 25 (58.1%) while number of females affected was 18 (41.9%). The most frequent comorbid was hypertension (HTN), seen in 35 (81.4%) patients. In our study, hypoalbuminemia, leukocytosis, lymphopenia and raised LDH were found to be associated with poor outcome in ESRD patients with COVID-19 (81.8%, 72.7%, 100% and 100% respectively) while thromboembolic complications were observed in very few patients. The mortality rate in our study was 25.6%, the most susceptible being aged 65 years and above (45.5%), while recovery rate observed in 18-65 age subgroup was 53.1%. In multivariate logistic regression analysis, the odds ratio of dying from COVID-19 was 19.5 times higher in patients with age more than 65 years compared to 18 to 50 years ( $p=0.039$ ). Similarly, patients with high TLC died 24.1 times more than patients with normal TLC ( $p=0.008$ ).

**Conclusions:** In our center, the mortality rate of ESRD patients affected with COVID-19 disease was 25.6% with older age, leukocytosis, lymphopenia, hypoalbuminemia and high LDH significantly associated with mortality.